

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Atty. Docket: NL031494US1

YONG JIANG ET AL.

Confirmation No.: 4998

Serial No.: 10/582,908

Examiner: STEPHEN J. RALLIS

Filed: JUNE 14, 2006

Group Art Unit: 3742

TITLE: STEAM IRONING DEVICE HAVING HEATING MEANS, PUMP, AND  
CONTROL CIRCUIT TO CONTROL RATIO OF FLUID FLOW RATE OF  
PUMP TO POWER OF HEATING MEANS

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Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Appellants herewith respectfully present its Brief on Appeal  
as follows:

REAL PARTY IN INTEREST

The real party in interest is Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA.

RELATED APPEALS AND INTERFERENCES

To the best of Appellants' knowledge and belief, there are no related appeals or interferences.

STATUS OF AMENDMENTS

An amendment was submitted on March 10, 2009 in response to an Office Action of December 10, 2008. No Amendment After Final Action was filed in response to the Final Office Action that issued June 23, 2009. This Appeal Brief is in response to the Final Office Action that objected to the specification, rejected the specification and rejected claims 1-8.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention, for example as claimed in claim 1, relates to a steam ironing device (e.g., see, present application, FIGs. 1-3) comprising a steam iron (e.g., see, present application, FIG. 1, page 3, lines 31-32, and steam iron 1) having a housing (e.g., see, present application, FIG. 1, page 3, line 32, and housing 2), a heatable soleplate at a bottom side of said housing (e.g., see, present application, FIG. 1, page 3, line 32, and heatable soleplate 3), and at least one atomization device (e.g., see, present application, FIG. 1, page 4, line 4, and atomizing device 10), said ironing device comprising a water supply device (e.g., see, present application, FIG. 1, page 3, line 32 through page 4, line 1, and water reservoir 4), a steam generator for generating steam (e.g., see, present application, FIG. 1, page 3, line 33, and steam generator 6), heating means for heating the steam generator (e.g., see, present application, FIG. 1, page 4, lines 4-6, and heating element 13), a flow path between the steam generator and the atomizing device (e.g., see, present application, FIG. 1, page 4, lines 3-4, and steam passage 9), a valve provided

in the flow path between the steam generator and the atomizing device (e.g., see, present application, FIG. 1, page 4, lines 3-4, and valve 11), and an electric pump for delivering water from said water supply device to said steam generator (e.g., see, present application, FIG. 1, page 4, lines 2-3, and electric pump 5), wherein the ironing device comprises control means for controlling a power of the heating means of the steam generator (e.g., see, present application, FIG. 1, dashed line between control means 7 and the heating element 13, page 1, lines 18-19, page 1, line 24 through page 2, line 3, page 4, lines 8-16 and page 5, lines 20-22), for controlling a flow rate of the pump (e.g., see, present application, FIG. 1, dashed line between control means 7 and the pump 5, page 1, lines 18-20, page 1, line 24 through page 2, line 3, page 4, lines 8-16 and page 5, lines 20-22), and for controlling opening and closing of said valve (e.g., see, present application, FIG. 1, dashed line between control means 7 and the valve 11, page 1, lines 18-21, page 1, line 24 through page 2, line 3, page 4, lines 8-20 and page 5, lines 20-22), said valve being controlled to be open if a ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38 to

control wetness of steam delivered by the atomizing device otherwise said valve is controlled to be closed (e.g., see, present application, FIGs. 1 & 4, structure for the control means is shown in FIG. 1. In FIG. 1, the control is shown in a form of a dashed line between control means 7 and the valve 11. The specification makes clear that "[t]he steam ironing device of the first embodiment (Fig. 1) consists of a steam iron 1 having a housing 2 with a soleplate 3 at the bottom side of the housing. A water reservoir 4, an electric pump 5, a steam generator 6, and control means 7 are accommodated inside the housing." With regard to FIG. 4, the specification of the present application states that "[t]he area between the lines B and C indicates the area in which the water flow and the power can be selected to obtain the desired wetness of the steam in the steam generator and thus the desired mist steam at the atomizing device." The specification further makes clear that "[t]he valve 11 may be a mechanically or electromechanically controlled valve." Also see, the present application, page 1, lines 18-21, page 1, line 24 through page 2, line 3, page 4, lines 8-20 and page 5, lines 20-22).

It should be explicitly noted that it is not the Appellants' intention that the currently claimed device and method be limited to operation within the illustrative device and method described above beyond what is required by the claim language. Further description of the illustrative device and method is provided above indicating portions of the claims which cover the illustrative device and method merely for compliance with requirements of this appeal without intending any further interpreted limitations be read into the claims as presented.



GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether the specification of U.S. Patent Application Serial No. 10/582,908 meets the requirements of a specification without an inclusion of section headings in the specification.

Whether claims 1-8 of U.S. Patent Application Serial No. 10/582,908 fail to comply with the written description requirement provided under 35 U.S.C. §112, first paragraph.

Whether claims 1-8 of U.S. Patent Application Serial No. 10/582,908 fail to comply with the enablement requirement provided under 35 U.S.C. §112, first paragraph.

Whether claims 1 and 2 of U.S. Patent Application Serial No. 10/582,908 are obvious under 35 U.S.C. §103(a) over U.S. Patent No. 5,642,579 to Netten ("Netten") in view of U.S. Patent No. 5,042,179 to van der Meer ("van der Meer") and U.S. Patent No. 2,615,265 to Maykemper ("Maykemper").

Whether claims 3-8 of U.S. Patent Application Serial No. 10/582,908 are obvious under 35 U.S.C. §103(a) over Netten, van der Meer, Maykemper, and further in view of U.S. Patent Publication No. 2006/0213092 to Leta ("Leta").

Whether claims 1 and 2 of U.S. Patent Application Serial No. 10/582,908 are obvious under 35 U.S.C. §103(a) over Netten in view of van der Meer, U.S. Patent No. 5,536,375 to Vogelmann ("Vogelmann") and Maykemper.

Whether claims 3-8 of U.S. Patent Application Serial No. 10/582,908 are obvious under 35 U.S.C. §103(a) over Netten in view of van der Meer, Vogelmann and Maykemper in further view of Leta.

ARGUMENT

The specification is said to not meet the requirements of a specification under 37 CFR 1.72(a) and MPEP §606 without an inclusion of section headings in the specification.

The Appellants respectfully submit that the specification meets the requirements of a specification under 37 CFR 1.72(a) and MPEP §606 without an inclusion of section headings in the specification.

Appellants have previously respectfully declined to add the headings since the section headings may be inappropriately utilized in interpreting the claimed subject matter and are not statutorily required. In fact, it is respectfully submitted that section headings are not statutorily required for filing a non-provisional patent application, but per 37 CFR §1.77 are only guidelines that are suggested for Applicants'/Appellants' use. (See Miscellaneous Changes in Patent Practice, Response to comments 17 and 18 (Official Gazette, August 13, 1996) [Docket No: 950620162-6014-02] RIN 0651-AA75 (emphasis added, "Section 1.77 is permissive rather

than mandatory. ... [T]he Office will not require any application to comply with the format set forth in 1.77").

Further, 37 C.F.R. §1.77(b) cited in the Final Office Action in support of the requirement for section headings (see, Final Office Action, page 2) merely states (emphasis added) "[t]he specification should include the following sections in order ..."

As stated above, should is permissive language rather than a statement of a mandatory requirement.

Contrasted with 37 CFR §1.72(b) which states (emphasis added) "the specification must commence on a separate sheet, preferably following the claims, under the heading "Abstract" or "Abstract of the Disclosure. The sheet or sheets presenting the abstract may not include other parts of the application or other material. The abstract in an application filed under 35 U.S.C. 111 may not exceed 150 words in length." Words such as "must" and "may not" are mandatory stipulations as opposed to "should" which is clearly permissive.

In a **Remarks** section of the Final Office Action contained on page 22 of the Final Office Action, the Final Office Action asserts that (emphasis added) "Applicant asserts that the MPEP § 608.01 (a)

states that headings are not required." This position is respectfully refuted.

What in fact the Applicants/Appellants asserted in an Amendment submitted on March 10, 2009 is simply that "Applicants appreciate being provided the suggested guidelines, however, again respectfully decline to add the headings as they are not required in accordance with MPEP §608.01(a), and could be inappropriately used in interpreting the specification." Accordingly, the Appellants did not stipulate that the MPEP § 608.01 (a) states that headings are not required as asserted in the Final Office Action, but merely stipulated that the MPEP § 608.01 (a) does not require headings.

While it is true that a preferable standard is set out by 37 C.F.R. §1.77(b), it is respectfully submitted that the language and legislative history makes clear that the preferred standard set out by 37 C.F.R. §1.77(b) is not mandatory and is not a requirement that must be complied with and as such, can not make up a basis for an objection to the specification.

The Final Office Action also points out that "it is applicants' responsibility to place an application in a condition for allowance" and while this is true, the Appellants respectfully

submit that a suggested format for the specification can not be a basis for non-allowance of the application.

Lastly, the Final Office Action states that "applicant has many pending applications at the Office that have complied with the Office standard. Therefore, the examiner maintains the objection to the specification and respectfully reasserts that appropriate correction is required."

The Appellants nonetheless respectfully submit that whether or not Appellants have other applications which have complied with a suggested format for the specification is immaterial to whether or not that suggested format may form a proper basis for an objection to the specification. The Appellants respectfully submit that the suggested format of the specification can not form a basis for an objection to the specification.

Clearly, based on the clear legislative history and language of 37 CFR §1.77(b), the language contained therein is suggested and not mandatory. It is respectfully submitted that 37 CFR §1.77(b) does not form a requirement for the specification.

Accordingly, the Appellants respectfully request reversal of the objection to the specification.

Claims 1-8 are said to fail to comply with the written description requirement provided under 35 U.S.C. §112, first paragraph.

35 U.S.C. §112, first paragraph states in pertinent part (emphasis added):

The specification shall contain a written description of the invention...

The Final Office Action states that (emphasis added) "the recitation to 'a control means for controlling opening and closing a valve if the ratio between the flow rate (g/min) of the pump and the power of the heating means is in a range of 1:20 to 1:38 otherwise said valve is controlled to be closed' (emphasis on 'otherwise said valve is controlled to be closed) is deemed new matter."

This statement of the Final Office Action is respectfully refuted. It is respectfully submitted that the specification contains a written description of the invention as required by 35 U.S.C. §112, first paragraph.

For example, the abstract of the invention states that  
(emphasis added):

To obtain wet steam at the atomizing device the ironing device comprises control means for controlling the power of the heating means of the steam generator, for controlling the flow rate of the pump, and for controlling the opening and closing of said valve, said valve being open if the ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38.

Accordingly as should be clear from the above discussion, at the time of the filing of the present patent application, the Appellants presented a written description of their invention to include a control means for controlling opening and closing of a control valve. Such a control means is shown in FIG. 1, as control means 7 connected by a dashed line to valve 11.

The Appellants provide in the specification on page 1, lines 24-29 that (emphasis added) "[t]he steam generator according to the invention generates wet steam. The wetness of the steam in the steam generator, i.e. the ratio between the amount of water and the amount of steam, is determined by the control means and depends on the ratio between the flow rate of the pump and the power of the heating means. The desired water-to-steam ratio can be obtained by adjusting both the power of the heating element of the steam



generator and the flow rate of the pump." The specification further provides that "[i]f the ratio between the flow rate of the pump and the power of the heating means is within the claimed range, moistening of fabrics is very effective."

Accordingly, it is respectfully submitted that the specification provides a written description that makes clear to a person skilled in the art that to use the Appellants invention, the controller controls both the power of the heating element of the steam generator and the flow rate of the pump to provide effective moistening.

The specification further provides:

In operation, when the iron is powered, the user can decide to perform the ironing task with the aid of mist steam. The power of the heating element 13 of the steam generator has, for example, a fixed value. The user selects the desired kind of mist steam which corresponds with a certain flow rate of the pump by means of one of the control buttons 40. The kind of mist steam may depend on the kind of garment to be ironed. For ironing jeans, for example, the amount of water in the mist steam should be greater than for ironing linen. The control means 7 trigger the pump 5 to deliver the proper flow rate. When the steam generator 6 has reached its operating temperature, the user can open the valve 11, which results in starting of the pump 5. The pump can only be started when the steam generator has reached its operating temperature. Water flows to the steam generator 6 and within a second a mixture of steam and water flows through the steam passage 9 to the atomizing device 10, where water is broken down into very fine water

droplets so that a spray of mist steam 14 is ejected on the garment. The valve 11 may be a mechanically or electromechanically controlled valve. (See, present application, FIG. 1 and page 4, lines 7-20, emphasis added.)

It is respectfully submitted that the specification provides a written description that makes clear that in operating the present iron, the valve can only be opened when the steam generator has reached its operating temperature. It is further clear that the controller controls the valve to have this operation.

The specification further provides "Fig. 4 [which] is a graph showing the area of the ratio between the flow rate of the pump and the power of the heating means for the steam generator."

In describing FIG. 4, the specification of the present application provides "Line B corresponds to a water flow/power ratio of 1:38." (See, present application, page 5, lines 14-15.) "Line C corresponds to a water flow/power ratio of 1:20." (See, present application, page 5, lines 17-18.) The specification of the present application further provides "[t]he area between the lines B and C indicates the area in which the water flow and the power can be selected to obtain the desired wetness of the steam in the steam generator and thus the desired mist steam at the

atomizing device." (See, present application, page 5, lines 20-22.)

It is respectfully submitted that the present application provides a written description in which it is clear that the controller controls opening and closing of the valve and that the valve is controlled to be open if a ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38.

Since the specification of the present application clearly provides that the valve is controlled to only be open under the conditions of the above stated ratio, clearly the specification provides a written description for the valve to be otherwise closed. It is respectfully proposed that what else would a person skilled in the art understand "only opened" to mean other than that the valve is otherwise closed.

It is respectfully submitted that as should be clear from the above discussion, the Appellants clearly provide a written description of the invention including "the valve to be otherwise closed".

Accordingly, it is respectfully requested that the Final Office Actions rejection of claims 1-8 under the written description requirement be reversed.

Claims 1-8 are said to fail to comply with the enablement requirement provided under 35 U.S.C. §112, first paragraph.

35 U.S.C. §112, first paragraph states in pertinent part (emphasis added):

The specification shall contain ... the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same...

The Final Office Action states that the present application provides (emphasis added) "no disclosure to the valve controlling any ratio between the flow rate (g/min) of the pump and the power of the heating means by an opening or closing." (See, Final Office Action, page 7.)

It is respectfully submitted that the Appellants do not purport that the application provides that the valve controls the ratio nor do the claims provide any such recitation. In fact, the

claims provide that the valve is controlled to be open if a ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38.

The Final Office Action further states that "the examiner can find no enabling disclosure to how the control means controls the opening and closing of a valve dependent on the ratio and otherwise closing it if the ratio condition is not met." (See, Final Office Action, page 7.)

The specification for example in FIG. 1 clearly shows that the control means controls each of the pump 5, the heating means 13 of the steam generator 6 and the valve 11.

It is respectfully submitted that the specification of the present application provides full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the present invention.

Any person skilled in the art would readily appreciate that the controller means of the present invention having control over each of the pump 5 and the heating means 13, is arranged to control each of the components of the ratio including the flow rate (g/min)

of the pump and the power of the heating means. Further, any person skilled in the art would readily appreciate that the controller means of the present invention is well suited and is configured to control the valve to be open when the ratio conditions of the claims are met.

As should be clear from the discussion contained herein above for example (see discussion above with regard to the "written description requirement"), "the desired water-to-steam ratio can be obtained by adjusting both the power of the heating element of the steam generator and the flow rate of the pump." FIG. 1 of the present application clearly provides for this control. See, for example, the specification of the present application on page 1, lines 24-29.

To facilitate the present discussion and reduce a duplication of the discussion of the present application, it is respectfully requested that discussion provided above be reviewed as evidence of the present application satisfying the enablement requirement under 35 U.S.C. §112, first paragraph.

It is respectfully submitted that as should be clear from the above discussion, the Appellants clearly provide a description as

to enable any person skilled in the art to which the present claims pertain, to make and use the controller of the present claims.

Accordingly, it is respectfully requested that the Final Office Actions rejection of claims 1-8 under the enablement requirement be reversed.

Claim 1 and 2 are said to be unpatentable over Netten in view of van der Meer and Maykemper.

Appellants respectfully request the Board to address the patentability of independent claim 1 and further claim 2 as respectively depending from independent claim 1, based on the requirements of independent claim 1. This position is provided for the specific and stated purpose of simplifying the current issues on appeal. However, Appellants herein specifically reserve the right to argue and address the patentability of claim 2 at a later date should the separately patentable subject matter of claim 2 later become an issue. Accordingly, this limitation of the subject matter presented for appeal herein, specifically limited to discussions of the patentability of independent claim 1 is not

intended as a waiver of Appellants' right to argue the patentability of the further claims and claim elements at that later time.

Netten shows a steam iron wherein "steam production is made dependent on the temperature of the fabric as detected by a fabric temperature sensor (24) embedded in the soleplate (2)." (See, Netten, FIG. 1 and abstract.) Netten shows that (emphasis added) "[a] fabric temperature sensor 24 is embedded in the front portion of the soleplate 2 and is surrounded by the steam vents 20 as shown in FIG. 2. The fabric temperature sensor 24 slightly touches the fabric during ironing and sends a fabric temperature signal FTS to the controller 16 which is indicative of the actual temperature of the fabric being ironed." (See, Netten, Col. 4, lines 47-53.) Netten makes clear that (emphasis added) "[a]s soon as the soleplate 2 touches the cool cloth the relatively low temperature of the cloth is sensed by the fabric temperature sensor 24 and the corresponding fabric temperature signal FTS signals the controller to activate the water pump 10 by sending the pump signal PS to the water pump 10. The water is converted to steam in the hot steam



chamber 12 and hot steam reaches the cloth via the steam duct 22 and the steam vents 20." (See, Netten, Col. 5, lines 8-15.)

Further, in Netten, "[w]hen the fabric temperature signal FTS from the fabric temperature sensor 24 signals the condensing temperature of steam (about 100° C.), the controller 16 stops the production of steam by sending an appropriate pump signal PS to the water pump 10." (See, Netten, Col. 5, lines 28-32.) Accordingly, as clear from Netten, pumping of water into steam chamber is merely controlled based on whether the temperature of fabric in contact with the temperature sensor is below the condensing temperature of steam.

The Final Office Action recognizes that Netten fails to teach, disclose or suggest the "control means ... for controlling opening and closing of said valve, said valve being controlled to be open if a ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38 to control wetness of steam delivered by the atomizing device otherwise said valve is controlled to be closed" as recited in claim 1.

The Final Office Action relies on Maykemper for merely showing use of an atomizing device after generation of steam and this point is not refuted (see, Final Office Action, page 10).

However, the Final Office Action relies on Van der Meer for showing that which is admitted missing from each of Nettten and Maykemper, however, it is respectfully submitted that reliance on Van der Meer is misplaced.

Van der Meer shows in FIG. 1 a steam valve 46 that is used to open and close the steam pipe between the steam generator 40 and the steam passages (not shown) in the soleplate (see, Van der Meer, Col. 5, lines 63-67). Van der Meer shows a control circuit that is equipped for closing the steam valve when a position detector indicates that the iron is in a position other than the position occurring during normal use (see, Van der Meer, Col. 4, lines 15-26; and Col. 13, lines 39-44).

It is respectfully submitted that although Van der Meer discusses various steam flow rates (in Col. 11, line 47 - Col. 12, line 22) as cited in the Final Office Action, there is no teaching by van der Meer that the control circuit specifically controls the steam valve (46) to open if the ratio between the flow rate (g/min)

of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38, otherwise said valve is controlled to be closed as stated in the Final Office Action.

Accordingly, it is respectfully submitted that the device of claim 1 is not anticipated or made obvious by the teachings of Netten in view of van der Meer and Maykemper. For example, Netten in view of van der Meer and Maykemper does not teach, disclose or suggest, a device that amongst other patentable elements, comprises (illustrative emphasis added) "control means ... for controlling opening and closing of said valve, said valve being controlled to be open if a ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a range of 1:20 to 1:38 to control wetness of steam delivered by the atomizing device otherwise said valve is controlled to be closed" as recited in claim 1. Van de Meer merely provides for the valve to be closed when the iron is not in an operating position and also provides examples of various steam flow rates however, does not provide for closing the valve when the ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is not in a range of 1:20 to 1:38.

Based on the foregoing, the Appellants respectfully submit that independent claim 1 is patentable over Netten in view of van der Meer and Maykemper and notice to this effect is earnestly solicited.

Claim 2 respectively depend from claim 1 and accordingly is allowable for at least this reason as well as for the separately patentable elements contained in said claim. Accordingly, separate consideration of claim 2 is respectfully requested.

Claims 3-8 are said to be unpatentable over Netten, van der Meer, Maykemper, and further in view of Leta.

Leta is cited for allegedly showing elements of the dependent claims yet does not cure the deficiencies in each of Netten, van der Meer and Maykemper. Accordingly, it is respectfully submitted that claims 3-8 are allowable at least based on dependence from independent claim 1.

Claims 1 and 2 are said to be unpatentable over Netten in view of van der Meer, Vogelmann and Maykemper.

This rejection in substance is similar as the rejection of claims 1 and 2 discussed above with an addition of Vogelmann which is merely cited to show an electronically controlled valve under control of a microprocessor based controller, yet this does not cure the deficiencies discussed above regarding Netten, van der Meer and Maykemper.

Based on the foregoing, the Appellants respectfully submit that independent claim 1 is patentable over Netten in view of van der Meer, Vogelmann and Maykemper and notice to this effect is earnestly solicited.

Claim 2 respectively depend from claim 1 and accordingly is allowable for at least this reason as well as for the separately patentable elements contained in said claim. Accordingly, separate consideration of claim 2 is respectfully requested.

Claims 3-8 are said to be unpatentable over Netten, van der Meer, Vogelmann and Maykemper, and further in view of Leta.

Leta is cited for allegedly showing elements of the dependent claims yet does not cure the deficiencies in each of Netten, van der Meer, Vogelmann and Maykemper. Accordingly, it is respectfully submitted that claims 3-8 are allowable at least based on dependence from independent claim 1.

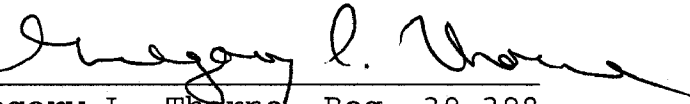
In addition, Appellants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Appellants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

CONCLUSION

The specification meets the requirements of a specification. complies with both of the written description requirement and the enablement requirement and claims 1-8 are patentable over any combination of Netten, van der Meer, Vogelmann, Maykemper and Leta.

Thus the Examiner's rejection of the specification and claims 1-8 should be reversed.

Respectfully submitted,

By   
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November 23, 2009

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**APPENDIX A**

**CLAIMS ON APPEAL**

1. (Previously presented) A steam ironing device comprising a steam iron having a housing, a heatable soleplate at a bottom side of said housing, and at least one atomization device, said ironing device comprising a water supply device, a steam generator for generating steam, heating means for heating the steam generator, a flow path between the steam generator and the atomizing device, a valve provided in the flow path between the steam generator and the atomizing device, and an electric pump for delivering water from said water supply device to said steam generator, wherein the ironing device comprises

control means

for controlling a power of the heating means of the steam generator,

for controlling a flow rate of the pump, and

for controlling opening and closing of said valve, said valve being controlled to be open if a ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is in a



range of 1:20 to 1:38 to control wetness of steam delivered by the atomizing device otherwise said valve is controlled to be closed.

2. (Previously presented) The ironing device of claim 1, wherein the ratio between the flow rate (g/min) of the pump and the power (W) of the heating means is controlled to be open in a range of 1:23 to 1:30 otherwise said valve is controlled to be closed.

3. (Previously presented) The ironing device of claim 1, wherein said atomizing device comprises at least one nozzle provided in a front part of the housing.

4. (Previously presented) The ironing device of claim 1, wherein said atomizing device comprises at least one nozzle provided in a tip area of the soleplate.

5. (Previously presented) The ironing device of claim 1, wherein the soleplate is provided with at least one discharge opening which is connected to the steam generator through a second flow path in which a steam chamber is provided.

6. (Previously presented) The ironing device of claim 1, wherein the soleplate is provided with at least one discharge opening which is connected to the steam generator through a second flow path between said valve and said at least one discharge opening, said valve opening the second flow path if the ratio between the flow rate of the pump and the power of the heating means is greater than 1:45 to control wetness of steam delivered by the at least one discharge opening.

7. (Previously presented) The ironing device of claim 1, wherein the soleplate is provided with at least one discharge opening which is connected to the steam generator through a second flow path in which a second valve is provided, said second valve being controlled to be open if the ratio between the flow rate of the pump and the power of the heating means is greater than 1:45 to control wetness of steam delivered by the at least one discharge opening.

8. (Previously presented) The ironing device of claim 6, wherein said iron comprises a steam chamber in said second flow path.

**APPENDIX B**

**Evidence on Appeal**

None

**APPENDIX C**

**Related Proceedings of Appeal**

None